

REMARKS

Applicants respectfully request reconsideration of the subject application as amended herein. This Amendment is submitted in response to the Office Action mailed April 20, 2006. Claims 1-32 are currently pending in this application. Claims 1, 6 and 22 have been amended.

Claim Rejections under 35 U.S.C. §103(a)

The Examiner rejected claims 1-8, 9, and 22-25 under 35 U.S.C. 103(a) as being unpatentable over Tenerz et al. (US 4,941,473) in view of Engelson (US 5,599,492). Applicant respectfully disagrees with the basis of this rejection. The Examiner rejected claims 1-8, 9, and 22-25 under 35 U.S.C. 103(a) as being unpatentable over Tenerz. The Examiner rejected claims 11-17, and 19-21 under 35 U.S.C. 103(a) as being unpatentable over Tenerz in view of Engelson, and further in view of Jafari (US 5,980,471) and Hurtak (US 6,458,088). The Examiner rejected claims 29-31 under 35 U.S.C. 103(a) as being unpatentable over Tenerz in view of Engelson and further in view of Amundson (US 6,178,346).

As discussed below, the pending claims are patentable over the above references.

The cited art fails to teach or suggest, *inter alia*, as claimed in claim 1: "at least one optical fiber disposed through the therapeutic guidewire, the optical

fiber configured to sense and transmit diagnostic information from at least one of before, during, and after a therapeutic treatment.” The cited art fails to teach or suggest, *inter alia*, as claimed in claim 6: “at least one optical fiber disposed within the therapeutic guidewire to sense and transmit vessel and blood characteristics.” The cited art fails to teach or suggest, *inter alia*, as claimed in claim 22: “an apparatus coupled to the data processing system, the apparatus comprising a therapeutic guidewire having a high strength proximal core section and flexible distal core section and at least one optical fiber disposed therein, the flexible distal core section having a tapered length and a distal plunge-ground length, the optical fiber capable to sense vessel and blood characteristics and transmit the sensed vessel and blood characteristics to the data processing system.” The cited art fails to teach or suggest, *inter alia*, as claimed in claim 24: “operating a data processing system coupled to the therapeutic guidewire such that light signals are transmitted to the desired location in the vasculature and reflected light signals are collected by the data processing system; and processing the reflected light signals to provide vessel and blood characteristics.”

Tenerz is directed to a guidewire for guiding a catheter that includes a pressure sensor at the distal end of the guidewire and a ventilation passage for connecting the pressure sensor to ambient pressure. In Tenerz, a miniaturized sensor is placed near the distal end of the guide wire and the signal transmission

from the sensor takes place optically via an optical fibre built into the leader. The pressure sensor and the optical fibre are mechanically connected to one another. Thus, in Tenerz, the pressure sensor senses the pressure and the optical fiber merely transmits the pressure sensed by the pressure sensor. Tenerz, therefore, does not disclose an optical fiber that both senses and transmits diagnostic information.

Tenerz also discloses that "a distinguishing feature characteristic for the guide wire and essential to its function is that there is a space 7 between the fibre 3 and the metal tube 6, this space constituting a ventilation duct for the pressure sensor 1." Thus, Tenerz teaches away from the presently claimed invention. Embodiments of the presently claimed invention do not require a ventilation duct around the optical fiber because a pressure sensor is not required to sense diagnostic information.

Engelson is directed to a guidewire that includes a flexible distal tip. Engelson does not disclose an optical fiber that both senses diagnostic information and communicates the sensed diagnostic information.

Hurtak and Amundson also do not disclose an optical fiber that both senses diagnostic information and communicates the sensed diagnostic information.

Therefore, neither Tenerz, Engelson, nor combinations thereof teach or suggest all of the limitations of independent claims 1, 6, 22 and 24. Claims 2-5, 7-

21, 23 and 25-32 depend, directly or indirectly, from independent claims 1, 6, 22 and 24. Accordingly, Applicants respectfully request withdrawal of the rejections of claims 1-32 under 35 U.S.C. §103.

CONCLUSION


The present application is in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call Jennifer Hayes at (408) 720-8300.

Please charge any shortages and credit any overages to Deposit Account No. 02 2666. Any necessary extension of time for response not already requested is hereby requested. Please charge any corresponding fee to Deposit Account No. 02-2666.

Respectfully submitted,

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